IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PERSONALIZED MEDIA COMMUNICATIONS, LLC,	)	
Plaintiff	)	
v.	)	**Case No. 2:15-cv-01366-JRG-RSP**
APPLE, INC.,	)	
Defendant	)	

PLAINTIFF'S OPPOSITION TO APPLE'S MOTION
TO DISMISS FOR FAILURE TO STATE A CLAIM

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I. INTRODUCTION

PMC submits this opposition to Apple's motion to dismiss for failure to state a claim. D.I. 34. Apple's motion rests, in part, on an argument that PMC should be collaterally estopped from asserting the patents-in-suit because the U.S. District Court for the District of Delaware has issued a decision invalidating under § 101 claims of *different* PMC patents not asserted here. ("Delaware Ruling"; Ex. A). PMC has appealed that decision. Nevertheless, Apple asks this Court to invalidate thirty-one claims of four PMC patents which have never before been litigated. The Court should deny Apple's Motion for at least the following reasons:

First, Apple has failed to conduct a proper collateral estoppel analysis by ignoring substantial differences between the claims at issue here and those that are the subject of the Delaware Ruling. A proper analysis separately examining *each* unadjudicated claim reveals that those claims are far from being "substantially identical" to those adjudicated in Delaware. Applying collateral estoppel to invalidate the presumptively valid claims at issue here, therefore, would deny PMC its due process right to prosecute its case.

Second, Apple improperly identified only a few of the asserted claims without showing that these claims are truly representative of all claims it has asked the Court to invalidate.

Third, Apple presented no evidence concerning the meanings of disputed claim terms and urges the Court to forego claim construction. To consider the patentability issues raised, however, the Court must develop a full understanding of the basic character of the claims, considering expert evidence concerning the historical context of PMC's inventions and how a skilled artisan, back in 1981 and 1987, would construe the disputed terms.

Finally, Apple has grossly mischaracterized and overgeneralized PMC's asserted claims to argue that the defined inventions are abstract. Apple has ignored that PMC's patents describe inventive concepts that were far from conventional in 1981 and 1987. Viewed as a whole, and

analyzed properly, all of the asserted claims describe patent eligible inventions.

II. BACKGROUND

A. Factual Background of the Patented Inventions

The Asserted Patents claim priority back to 1981. Conventional technology at that time was severely limited. Mass medium programming to receivers (such as radios and televisions) was typically transmitted in only one direction. All viewers received essentially the same, unalterable content, and had no way of communicating with the broadcaster to customize or personalize content. *See* Declaration of Alfred C. Weaver, Ph.D. in Support of PMC's Opposition to Apple's Motion to Dismiss ("Weaver Dec."), ¶¶ 27-31, 36-37. Similarly, conventional transmitters could not control operations at receiver stations. *Id.*, ¶ 31.

Further, in 1981, commercial television and radio were still in analog form, not digital. *Id.*, ¶ 32. Limiting access to programming to prevent piracy was accomplished through "scrambling," which involves, for example, reordering video lines on a television screen. Authorized users were given a "descrambler" which would correctly reorder the lines. *Id.*, ¶ 32-33. The emergence of digital broadcast technology called for new approaches to secure transmission, such as "decryption." A challenge presented by the new networks was how to deliver encrypted digital information and programming that enabled decryption of the content by authorized users only. In the 1980s, it was not conventional to distribute decryption keys remotely by sending them over a computer network. *Id.*, ¶¶ 34-35.

Moreover, it was not conventional in the 1980s to have streaming digital media content. Instead, the conventional practice was to download a particular media file for later viewing. *Id.*, ¶¶ 41-49. Network communications to control the processing of multimedia content received in messages was also not conventional. Receivers could not externally communicate information related to the usage of multimedia signals, such as, by recording how or where signals are passed

during the consumption of multimedia content. *Id.*, ¶ 49.

The Asserted Patents recognized that broadcast programming could be personalized down to the receiver. They claim systems and methods for distributing digital information over a network from a transmitter station to a receiver station. The transmitted information can include commands, data, signals, computer programs, and/or other programming in either encrypted or non-encrypted form. *Id.*, ¶¶ 50, 52. Such information can be decrypted by a receiver using decryption key information (*e.g.*, the decryption key(s), the location of the key(s), a method of calculating the key(s), or a reference to a method of calculating the key(s)) sent from the transmitter over the network which can itself be encrypted and decrypted by the receiver using information provided by the transmitter or stored at the receiver. *Id.*, ¶ 53.

The Patents recognize the significant improvements that could be accomplished if transmitters could control receivers such as by sending control instructions in the same information stream as programming content; and if receivers could use those instructions to identify content addressed to individuals and carry out controlled operations specific to a receiver. The inventions employ distributed computing and control, and provide customized user content, and new modes of delivering that content. *Id.*, ¶ 55.

At the time of the inventions, the secure delivery of encrypted programming content along with related control signals to control or enable specific operations at remote receiver stations was a technical challenge particular to a distributed computing environment. *Id.*, ¶ 58. The inventions require specially-programmed equipment to implement various specific applications and functions, such as receiving incoming digital information transmissions; filtering or selecting control signals or content from the transmissions; decrypting the transmissions; and/or causing pre-programmed instructions to execute upon receipt of instruct signals. None of these functions are mere algorithms or mental steps. *Id.* Rather, they are novel

and unconventional technological solutions to technical problems arising in computer networks.

B. Procedural Background

PMC alleges infringement of 31 claims of U.S. Patent Nos. 8,191,091, 8,559,635, 7,752,649, and 8,752,088 (the "Asserted Patents"). Each patent has a 284 column specification, claims priority to either 1981 or 1987 and has not previously been litigated. PMC previously filed suit against Amazon in Delaware for infringement of 48 claims from seven PMC patents, including U.S. Patent No. 7,801,304 ("the '304 Patent"). None of those claims or patents are at issue here. The Delaware court issued an order finding all claims in that case invalid under §101. Ex. A. PMC has appealed that decision.

Apple now moves this Court to dismiss on two bases: (i) issue preclusion with respect to the '091 and '635 Patents based upon the Delaware court's ruling on the '304 Patent; and (ii) invalidity based upon an assertion that all 31 claims at issue here are unpatentable.

III. LEGAL STANDARDS

A. Standard of Review

A motion filed under Rule 12(b)(6) tests the sufficiency of the complaint's factual allegations. *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007). A complaint must contain "a short and plain statement of the claim showing that the pleader is entitled to relief, in order to give the defendant fair notice of what the . . . claim is and the grounds upon which it rests." *Id.* A court should separate the factual and legal elements of a claim, accepting the well-pleaded facts as true and in the light most favorable to the plaintiff, and disregarding the legal conclusions to determine whether the well-pled facts sufficiently show that the plaintiff "states a plausible claim for relief." *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009); *Ferguson v. Bank of N.Y. Mellon Corp.*, 802 F.3d 777, 780 (5th Cir. 2015); *Clear With Computers, LLC v. Dick's Sporting Goods, Inc.*, 21 F. Supp. 3d 758, 762 (E.D. Tex. 2014). The court may consider the

pleadings, public record, exhibits attached to the complaint, and documents incorporated into the complaint by reference. *Tellabs, Inc. v. Makar Issues & Rights, Ltd.*, 551 U.S. 308, 322 (2007).

The determination is not whether PMC will ultimately prevail but whether it is entitled to offer evidence to support its claims. This does not impose a probability requirement at this stage, but "simply calls for enough facts to raise a reasonable expectation that discovery will reveal evidence of [the necessary element]." *Twombly*, 550 U.S. at 556.

B. Issue Preclusion

Issue preclusion or collateral estoppel prohibits a party from relitigating issues that have been fully and fairly litigated in a previous action. *See Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313 (1971). Although regional circuit law applies to procedural issues, the Federal Circuit has explicitly stated that the question of whether patent claims are the same, and thus potentially subject to collateral estoppel, necessitates the use of Federal Circuit law. *Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335, 1341 n.1 (Fed. Cir. 2012).

For collateral estoppel to apply, there must be an "identity of the *issues* that are litigated" between the prior and subsequent actions. *See Exergen Corp. v. Kaz USA, Inc.*, 2015 WL 8082402, at *2 (D. Mass. Dec. 7, 2015) (quoting *Ohio Willow Wood Co. v. Alps S., L.L.C.*, 735 F.3d 1333, 1342 (Fed. Cir. 2013)). However, where the differences between the adjudicated and unadjudicated patent claims "materially alter the question of invalidity" collateral estoppel does not apply. *Id.* Thus, the relevant question is whether the validity issues for the unadjudicated claims are "substantially identical" to those for the adjudicated claims. *Westwood Chem., Inc. v. U.S.*, 525 F.2d 1367, 1375 (Ct. Cl. 1975). If not, due process demands that the patentee be given a full and fair opportunity to litigate those issues. *Bourns, Inc. v. U.S.*, 537 F.2d 486, 492 (Ct. Cl. 1975). Only by focusing on this issue can the second court ascertain whether the patentee had the requisite "full and fair" chance to litigate the validity of the unadjudicated claims. *Westwood*

Chem., 525 F.2d at 1372. When a patentee can show it was not afforded fair opportunity, procedurally, substantively, and evidentially, to pursue its claims in the prior case, collateral estoppel does not apply. *See Miss. Chem. Corp. v. Swift Agric. Chems. Corp.*, 717 F.2d 1374, 1376 (Fed. Cir. 1983). The application of collateral estoppel "will necessarily rest on the trial court's sense of justice and equity." *Blonder-Tongue Labs.*, 402 U.S. at 334.

C. Patentable Subject Matter Under 35 U.S.C. § 101 Is To Be Construed Broadly, And The Exceptions Are Narrow

In most circumstances an inventor may patent "any new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. But the Supreme Court has read exclusions into Section 101 for "[l]aws of nature, natural phenomena, and abstract ideas." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014). Patents directed to one of these exclusions must survive additional scrutiny. The rationale is "one of pre-emption," namely a "concern that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity." *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 132 S. Ct. 1289, 1301 (2012)). But "an invention is not rendered ineligible for patent simply because it ***involves*** an abstract concept." *Id*. (emphasis added). Indeed, the Supreme Court has cautioned that courts must "tread carefully in construing this exclusionary principle lest it swallow all of patent law." *Id*. That is because, "[a]t some level, 'all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.'" *Id*. (quoting *Mayo*, 132 S. Ct. at 1293). Thus, for instance, ***"application*** of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." *Diamond v. Diehr*, 450 U.S. 175, 187 (1981).

The Supreme Court in *Alice* "set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible

applications of those concepts." *Alice*, 134 S. Ct. at 2355. ***First***, the court must "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Id*. "If not, the claims pass muster under § 101." *Ultramercial, v. Hulu*, 772 F.3d 709, 714 (Fed. Cir. 2014).

Second, if the answer to the first step is "yes," then the court must "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S.Ct. at 2355 (quoting *Mayo*, 132 S.Ct. at 1297-98). This step asks whether the claims add an "inventive concept" that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself." *Id*. The limitations of a claim embody an inventive concept if they are not merely conventional or routine in the relevant field at the time of the invention. *Alice*, 134 S. Ct. at 2359. If not conventional and routine, the limitations ensure that the claim is "something more" than an attempt to patent the abstract idea.

Technological solutions to problems arising out of new technologies can be patent-eligible. Thus, for instance, solving "a problem specifically arising in the realm of computer networks" is inventive, *DDR Holdings v. Hotels.com*, 773 F.3d 1245, 1257 (Fed. Cir. 2015), because it calls for something more than the application of routine knowledge to solve the same old problem transplanted to a new setting. By contrast, "some business practice known from the pre-Internet world" does not become patentable with the routine instruction "to perform it on the Internet," *id*., or by its implementation on a generic computer, *Alice*, 134 S. Ct. at 2358.

IV. ARGUMENT

A. This Court Should Not Apply Collateral Estoppel to the Unadjudicated Claims Because The Differences "Materially Alter the Question of Validity"

Courts agree that collateral estoppel applies only when an issue necessarily and actually found in the prior case is *identical* to the issue in the subject case. *See Parklane Hosiery Co. v.*

Shore, 439 U.S. 322, 329 (1979); *Blonder-Tongue*, 402 U.S. at 346; *Suntiger v. Sci. Research Funding Grp.*, 189 F.3d 1327, 1333 (Fed. Cir. 1999). Thus, the fact that the Delaware court held a certain claim patent-ineligible, a decision which is currently on appeal to the Federal Circuit, does not automatically mean that claims in two different (but related) unadjudicated patents will also be patent-ineligible. *See Westwood Chem.*, 525 F.2d at 1371. In fact, the differences between the unadjudicated claims and those at issue in the prior case establish the lack of identical issues here. Moreover, PMC lacked a full and fair opportunity to litigate the issues in the prior case. The Court should reject Apple's attempt to apply collateral estoppel.

1. Apple Has Not Established That All of the Unadjudicated Claims in This Matter Are Identical to the Adjudicated Claims in the Prior Case

Despite Apple's assertions to the contrary, the claims here are not identical to those adjudicated in the prior case. Indeed, by seeking collateral estoppel with respect to only two of the four patents-in-suit, even though all four share a common specification with the '304 Patent, Apple recognizes that the focus of the collateral estoppel analysis is properly on the language of *each* asserted claim. In fact, as detailed by Dr. Weaver, there are material differences between the adjudicated and unadjudicated claims. Weaver Dec., ¶¶ 161-163. Apple's reliance on *Ohio Willow* is misplaced. There, the Court held that "these patents use slightly different language to describe substantially the same invention. . . . [T]he '182 patent analogously recites the same claim scope . . ."[1] 735 F.3d at 1342. Those "slight differences," addressed in an obviousness context, do not compare to the substantial differences that exist here.

Apple contends that this Court should apply the Delaware Ruling to invalidate *all* of the asserted claims of the '635 and '091 Patents. This "amounts to an impermissible bypass of the

[1] In *Ohio Willow*. "[f]or example, where the '237 patent recites a 'tube sock-shaped covering,' an 'amputation stump being a residual limb,' and 'fabric in the shape of a tube sock,' the '182 patent analogously recites the same claim scope in the form of a 'cushion liner for enclosing an amputation stump, said liner comprising a fabric covering having an open end for introduction of said stump and a closed end opposite said open end.'" 735 F.3d at 1342.

required claim-by-claim analysis. . . . Moreover, [Apple]'s position runs counter to the codified presumption that '[e]ach claim of a patent (whether independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims.'" *See Exergen Corp.*, 2015 WL 8082402 at *5. "Consistent with this settled understanding, courts have simultaneously invalidated and upheld different claims of the same patent under § 101" and thus it is critical for the Court to consider independently whether each asserted claim of the '635 and '091 Patents presents issues that materially alter the question of validity when compared to the Delaware Ruling. *See id.* (quoting *Ass'n for Molecular Pathology v. Myriad Genetics., Inc.*, 133 S. Ct. 2107 (2013)). Apple, however, has failed to meet its burden of proving how *each* asserted claim is "substantially identical" to the adjudicated claims of the '304 Patent.

Instead, Apple improperly focuses on representative claims without even attempting to show that "all the claims are substantially similar and linked to the same abstract idea." *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014). It is not enough to simply allege in conclusory fashion that the claims are substantially similar and "linked to the same abstract idea." Br. at 13. In contrast, PMC has provided detailed evidence of the "material" differences between the asserted claims. *See* Weaver Dec., ¶¶ 74, 78, 82, 93, 95, 96, 104, 105, 109, 111, 116, 118.

a. '091 Patent

Ignoring 11 of the 12 asserted claims, Apple argues that claim 13 of the '091 Patent, which it contends is representative, is "substantially identical" to claim 1 of the '304 Patent for purposes of collateral estoppel. Apple's argument focuses on the supposed similarity between four of the seven recited steps, Br. at 13, but provides no explanation or analysis beyond the high-level similarity of the steps. As explained by Dr. Weaver, however, the "four steps include notable differences between the two claims. For example, in the 'detecting' step, claim 13 of the

'091 Patent recites 'detecting in said encrypted digital information transmission the presence of an instruct-to-enable signal' while claim 1 of the '304 Patent recites 'detecting said first encrypted digital control signal portion of said programming.'" Weaver Dec.,¶ 163. Claim 13 of the '091 Patent also includes two method steps that are completely absent from claim 1 of the '304 Patent, and as a result claim 13 "recites a significantly different decryption procedure in which the receiver station must first determine how to locate 'a first decryption key' and then locate the key accordingly (i.e., 'based on said step of determining')." *Id*., ¶ 163. Furthermore, while claim 1 of the '304 Patent requires detecting and decrypting "said first encrypted digital control signal portion of said programming," claim 13 of the '091 Patent recites "***locating*** said first decryption key," which may cover the identification and retrieval of a locally stored decryption key as opposed to one downloaded from an incoming transmission. *Id*.., ¶ 163.

The substantial differences between the asserted claims of the '091 Patent (including without limitation claim 13) and claim 1 of the '304 Patent preclude application of collateral estoppel. *See Exergen Corp.*, 2015 WL 8082402, *6-7 (determined additional elements in certain claims prevented use of issue preclusion in § 101 context).

b. '635 Patent

Apple limits its analysis of the '635 Patent to two claims, ignoring the other eleven asserted claims, and alleges, without more, that the linguistic differences between those claims and the claims of the '304 Patent are trivial and irrelevant to the § 101 analysis. Apple is wrong.

While claim 2 of the '635 Patent has many common elements with claim 1 of the '304 Patent, the differences "materially alter the question of validity." Claim 2 requires that a first encrypted digital control signal portion of received programming be decrypted using a first decryptor. An encrypted digital information portion of the programming is then passed to a second decryptor which decrypts it based on the decrypted control signal portion of the

programming. Apple tries to minimize the importance of the claimed second decryptor and states without explanation that it "has no conceivable impact on the § 101 analysis." Br. at 11. But, "while in practice the 'first decryptor' and the 'second decryptor' may be either implemented in two physically distinct devices or integrated as related circuits or software modules on a single piece of hardware, the conceptual segregation of control signal decryption and content decryption could provide concrete technical advantages such as further deterrence against security attacks." Weaver Dec., ¶ 161.[2]

Claim 1 of the '635 Patent is different in form and substance from claim 1 of the '304 Patent and those differences would "materially alter the question of validity." Claim 1 of the '304 Patent recites a second "passing" step that is not present in claim 1 of the '635 Patent. Further, claim 1 of the '304 Patent recites that a single decryptor decrypts the encrypted control signal, and that same decryptor then uses the decrypted control signal to decrypt the encrypted information content. Weaver Dec., ¶ 162. That feature of a single decryptor performing both layers of decryption is absent from claim 1 of the '635 Patent. Additionally, claim 1 of the '304 Patent recites a step of decrypting an "encrypted digital information portion" of the programming that is not present in claim 1 of the '635 Patent.

Moreover, Apple's assertion that the phrase "to form decrypted programming" merely states "the tautological conclusion that decrypting encrypted digital programming forms 'decrypted programming'" is wrong. As explained by Dr. Weaver, "it is at least debatable whether 'to form decrypted programming' goes beyond the step of 'decrypting' and further requires additional post-decryption processing, such as reassembly of decrypted information, in order to make the 'decrypted programming' ready for presentation." *Id.*, ¶ 162. Further, "the

[2]Apple ignores other claims such as claim 3, which discuss the control of a transmitter station, or claim 13, which discusses changing a decryption technique based on received control signals. Weaver Dec., ¶ ¶ 96-101, 104, 162.

last element in claim 1 of the '635 Patent not only requires that 'said decrypted programming' be presented but also specifies that the programming be presented 'to a viewer or listener,' which implicitly identifies the media type of the decrypted programming as either visual or aural." *Id.*

These differences are more than just "minor wording changes" but rather are substantial differences that "materially alter the question of validity," s*ee Exergen Corp.*, 2015 WL 8082402, at *6-7, and preclude the application of collateral estoppel.

2. PMC Did Not Have The Opportunity To Fully And Fairly Litigate The Issues In This Matter

The Delaware court did not afford PMC the opportunity to fully and fairly litigate the issues. The decision on the '304 Patent is two pages, analyzes a single claim without explaining how it is representative, does not apply PMC's claim construction for the §101 analysis, and fails to consider the expert declaration. Now Apple opportunistically exploits that decision (which is on appeal) in an attempt to invalidate two different patents. Determining whether a party had "a full and fair chance to litigate the validity of his patent . . . is of necessity not a simple matter." *Blonder-Tongue*, 402 U.S., at 333. This Court must consider whether the first court applied the correct standard and whether "the prior case was one of those relatively rare instances where the court wholly failed to grasp the technical subject matter and issues in suit." *Id.*

Here, the Delaware court discussed only claim 1 of the '304 Patent but invalidated seven claims. The court, however, conducted no analysis to show the purportedly "representative" character of claim 1. Ex. A at 4. In *Content Extraction*, relied on by the court, the claims were treated as representative because (a) the movant explained how they were representative, ***and*** (b) the district court conducted its own analysis in making specific findings that the claims were representative. 776 F.3d at 1348. No such analysis was done by the Delaware court.

Second, while the Delaware court stated that it was adopting PMC's proposed

constructions for the purpose of the § 101 motion, Ex. A at 4, the Delaware Ruling unequivocally demonstrates that it did not. As just one example, it states that cryptography had been known since ancient Mesopotamia, Ex. A at 10. But such manual deciphering of written text is an analog process completely at odds with PMC's construction of "decryption" as being a digital process using a digital key and algorithm and that expressly excluded analog processes.

Third, the Delaware court improperly disregarded the expert declaration of Dr. Weaver, and instead seems to have applied its own incorrect understanding of what is conventional or insignificantly inventive—apparently from the vantage point of *today*, not the significantly different time when the inventions were made.

Because the Court did not apply the correct standard and "wholly failed to grasp the technical subject matter and issues in suit," PMC did not have a full and fair opportunity to litigate the issues; and issue preclusion is improper. *Blonder-Tongue*, 402 U.S., at 333.

B. Apple's Motion to Dismiss Should be Denied as Premature Because Claim Construction is Necessary and Fact Issues Exist

1. Claim Construction Is Necessary to Determine Whether The Asserted Patents Are Ineligible

Apple's motion should be denied as premature because "[c]laim construction … is an important first step in a § 101 analysis." *In re Bilski*, 545 F.3d 943, 951 (Fed. Cir. 2008), *aff'd, Bilski v. Kappos*, 561 U.S. 593 (2010). And though claim construction "is not an inviolable prerequisite to a validity determination under § 101, . . . it will ordinarily be desirable – and often necessary – to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter." *Bancorp Servs., LLC v. Sun Life Assurance Co. of Can. (US)*, 687 F.3d 1266, 1273-74 (Fed. Cir. 2012); *see also Ass'n for Molecular Pathology v. USPTO*, 702 F. Supp.2d 181, 214 (S.D.N.Y. 2010), *aff'd, Myriad*, 133 S. Ct. 2107 ("Before considering the patent-eligibility of a

patent claim, the disputed terms in the claims must be construed in order [to] ensure the scope of the claims is accurately assessed."); *Macro-Solve, Inc. v. GEICO Ins. Agency, Inc*., 2013 U.S. Dist. LEXIS 189003, at *5 (E.D. Tex. Feb. 5, 2013) (*adopted by*, 2013 U.S. Dist. LEXIS 18909 (E.D. Tex. Mar. 6, 2013)) ("[A dispute regarding claim meaning] should be resolved at claim construction, not on the pleadings pursuant to Fed. R. Civ. P. 12(c).").

Indeed, courts have routinely denied similar motions as premature. *See, e.g.*, *Rockstar Consortium US LP, Inc. v. Samsung Elecs. Co., Ltd.*, 2014 U.S. Dist. LEXIS 67097, at *13 (E.D. Tex. May 15, 2014) ("If there are factual disputes about the patent's claims, . . . the question of patentable subject matter should be reserved until claim construction."); *DietGoal Innov. v. Tyson Foods*, 2013 U.S. Dist. LEXIS 189004, at *2-3 (E.D. Tex. Mar. 25, 2013); *Deston Therapeutics LLC v. Trigen Labs., Inc.*, 723 F. Supp. 2d 665, 672 (D. Del. 2010).

Apple's assertion that "no claim construction issues impact the §101 analysis of the asserted claims in this case," (Br. at 27), is simply not correct. For example, Apple contends that the asserted claims of PMC's '091 and '635 Patents "are directed to the abstract idea of converting information from one format to another (*i.e.*, decrypting information"). Br. at 16-17. But Apple's definition of "decrypting" is unreasonably broad and certainly is not the definition PMC proposes. The claimed inventions are directed to methods that are far more specific than merely "converting information from one format to another." The inventions relate to management of "decryption keys" and their distribution in a digital network to control access to, and the "decryption" of, "encrypted" digital content delivered over the network. '091 Patent, 1:25-28. PMC contends that "decrypting" is a method that uses a digital key in conjunction with an associated algorithm to decipher (render intelligible or usable) digital data. Based on at least this dispute between the parties concerning the definition of "decrypting," construction is needed of '091 and '635 Patents claim terms including "encrypted digital information transmission,"

"decrypting," "decryption key," "to decrypt in a specific fashion on the basis of said code," among other terms. (A list of the claim terms requiring construction prior to a decision on this motion as well as proposed constructions is attached as Ex. B.) Each of these terms, and others, when construed properly, place meaningful limits on the claims that distinguish the claimed inventions from the prior art. Claim construction is relevant, at a minimum, to the Court's second step determination of whether the claims are directed to inventive concepts.

2. Underlying Questions of Fact Preclude a Determination of Whether the Asserted Patents Are Patent Ineligible

Analysis of patentable subject matter under §101, "while ultimately a legal determination, is rife with underlying factual issues." [3] *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1339 (Fed. Cir. 2013) ("*Ultramercial I*"), *vacated on other grounds*, 134 S. Ct. 2870 (2014). For example, the second step of the *Alice* analysis entails consideration of matters that are classically factual. The inquiry does not ask district courts to apply their own understanding of what is well known and conventional *today*, but to determine what was *at the relevant time* "well-understood, routine, conventional activity previously engaged in by scientists who work in the field," *Mayo*, 132 S. Ct. at 1298. The relevant time is *the effective filing date of the patents-in-suit*, which in this case is 1981 and 1987, 29 to 35 years ago. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1377 (Fed. Cir. 2015). Determining the *past* state of the art is classically a factual question – and that is no less true when the determination forms part of the evidentiary "underpinnings" of a legal question. *See, e.g., Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 838, 841 (2015).

Likewise, inquiry into the scope of preemption – how much of the field is "tied up" by the patent claim – encompasses factual determinations: identifying the "field," the available

[3] Though the Supreme Court vacated and remanded *Ultramercial I* in light *Alice*, it did not question the Federal Circuit's procedural analysis set forth in Section II of *Ultramercial I* in *Alice* or the ruling vacating judgment.

alternatives, and the preemptive impact of the claims in that field. A disputed scientific or technical question that requires resort to extrinsic evidence, such as is the case here, is not a question of law on which a district court can simply opine. Nor is it a proper subject for judicial notice. As the Federal Circuit explained:

> [T]he 101 inquiry requires a search for limitations in the claims that narrow or tie the claims to specific applications of an otherwise abstract concept. Further, factual issues may underlie determining whether the patent embraces a scientific principle or abstract idea. If the question is whether "genuine human contribution" is required, and that requires "more than a trivial appendix to the underlying abstract idea," and were not at the time of filing "routine, well-understood, or conventional," factual inquiries likely abound. Almost by definition, analyzing whether something was "conventional" or "routine" involves analyzing facts. Likewise, any inquiry into the scope of preemption – how much of the field is "tied up" by the claim – by definition will involve historic facts: identifying the "field," the available alternatives, and the preemptive impact of the claims in that field.

Ultramercial I, 722 F.3d at 1339 (internal citations omitted); *see also Accenture Glob. Servs. v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013) ("Patent eligibility under §101 presents an issue of law [that] . . . may contain underlying factual issues.").

At least the following factual issues preclude dismissal at this stage:

- Whether the purported abstract idea of "converting information from one format to another" is a building block of human ingenuity, or a fundamental economic practice long prevalent in our system of commerce;

- Whether each asserted claim of the '091 and '635 Patents is directed to the purported abstract idea of "converting information from one format to another," or rather to new and useful methods for securely distributing and locating decryption keys over a network so that only authorized subscribers can access the key and decrypt the encrypted content, or remotely controlling the decryption process by delivering control or other signals that are carried along with the encrypted digital information transmissions and are processed to determine a decryption technique or a specific fashion in which a receiver station decrypts encrypted programming;

- Whether the purported abstract idea of "using information to decide which television program to display" is a building block of human ingenuity, or a fundamental economic practice long prevalent in our system of commerce;

- Whether each asserted claim of the '649 Patent is directed to the purported abstract idea of "using information to decide which television program to display," or rather to novel techniques for controlling the processing of digital multimedia content at the receiver

station through control information transmitted in a message stream along with the content;

- Whether the purported abstract idea of "monitoring how information is used" is a building block of human ingenuity or a fundamental economic practice long prevalent in our system of commerce;

- Whether claim 14 of the '088 Patent is directed to the purported abstract idea of "monitoring how information is used," or instead to a specific implementation of a multimedia receiving apparatus for processing multimedia content and gathering related signal usage information.

- Whether each asserted claim would preempt the use of the purported abstract idea in all fields, and thus effectively grant a monopoly over that abstract idea; and

- Whether the limitations of each asserted claim, when considered individually or as an ordered combination, i) describe a technological innovation; and ii) were "well-understood, routine, or conventional" as of the dates of the inventions.

These factual issues are necessary predicates to Apple's arguments, but Apple either provides only conclusory attorney argument to support its positions, or simply ignores them altogether. Given Apple's inadequate and unsupported showing, the Court must conclude that the asserted claims are valid (or that Apple failed to meet its burden), and that there is no evidence that the claims are (a) directed to the purported abstract ideas as articulated by Apple, (b) require only matter "conventional" as of the invention dates, (c) require only the use of "generic computer functions," or (d) considered in context as a whole describe non-technological innovations. *See Clear With Computers*, 21 F. Supp. 3d at 762 ("Court must accept all factual allegations in the complaint as true and draw all reasonable inferences in favor of the non-movant.").

C. Apple's Motion Only Addresses Portions of Five Claims From The Thirty-One Asserted Claims And Is Therefore Deficient on Its Face

Apple's motion should also be denied because it provides no evidence that every one of the thirty-one asserted claims is directed to ineligible subject matter. Of the asserted claims, Apple only addresses portions of five claims: claims 1 and 2 of the '635 Patent, claim 13 of the '091 Patent, claim 39 of the '649 Patent and claim 14 of the '088 Patent. Apple asserts that these

claims are "representative," but it provides no explanation, evidence, or analysis as to why that is the case. There are many meaningful distinctions between the asserted claims. *See* Weaver Dec., ¶ 74 (comparing claim 20 to claim 13), ¶ 78 (comparing claim 26 to claim 13), ¶¶ 96-101 (contrasting claims 1 and 2 of the '635 Patent to claim 3); ¶ 136 (contrasting the requirements of claim 54 of the '649 Patent to claim 39).

Moreover, in determining patent eligibility under §101, each of the "claims must be considered as a whole," not just some of the asserted claims that Apple choose to address, and not just portions of those claims. *See Diamond*, 450 U.S. at 188; *see also Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014); *Fr. Telecom S.A. v. Marvell Semiconductor Inc.*, 39 F. Supp. 3d 1080, 1097 (N.D. Cal. 2014) ("Supreme Court precedents urge a claim-by-claim approach to subject matter eligibility that avoids rigid line drawing."). Apple's failure to address all the elements of all the asserted claims is fatal.

D. Apple Fails To Demonstrate That Any of the Asserted Claims Are Invalid Under §101

1. The Asserted Claims of the '091 and '635 Patents Are Not Directed To An Abstract Idea

The threshold inquiry of the §101 analysis requires the Court to determine whether ***each claim*** is directed to an "abstract idea," *i.e.*, an "idea of itself," fundamental truths, or fundamental principles of patenting of which would pre-empt the use of basic tools of scientific and technological work. *Alice*, 134 S. Ct. at 2354. Apple's assertion that the '091 and '635 Patent claims are directed to the purported abstract idea of "converting information from one format to another' *i.e.*, decrypting information" (Br. at 1, 16-17, 19), is a gross mischaracterization and oversimplification, and is contrary to the actual language of the claims. None of claims 1 or 2 of the '635 Patent, or claim 13 of the '091 Patent (or the 23 other asserted claims of these two patents) simply covers the concept of converting information from one format to another.

Considered as a whole, the steps of the asserted claims of the '091 Patent recite more than the mere manipulation of information. While the asserted claims recite "decrypting" as a step, when all the steps of each claim are considered together, it is evident that the claims of the '091 Patent (construed as PMC urges) are instead directed to methods for controlling ***how*** the decryption key information (*e.g.*, one or more decryption keys themselves, a reference to where to locate a decryption key, a function that generates a decryption key, or a reference to a function that generates a decryption key) necessary to enable decryption at a receiver station is remotely delivered over a network to receivers and used. Weaver Dec., ¶¶ 62, 82, 84. For example, the fourth step of claim 13 recites "determining a fashion in which said receiver station locates a first decryption key by processing said instruct-to-enable signal." '091 Patent, 286:1-3. A POSITA would understand an "instruct-to-enable signal," as used in the patent claims, to be a signal carrying information used by a receiver station to enable the implementation of the enumerated operation, here, decryption of encrypted digital information, Weaver Dec., ¶ 64. As explained in the '091 Patent, there are different ways for the receiver station to identify which decryption key to use to decrypt the received encrypted digital information. For example, the enabling information carried in the instruct-to-enable signal can be a reference to a particular pre-stored decryption key ('091 Patent, 22:66-24:16), instructions on how to recover the decryption key (*Id.*, 156:4-9), instructions that enable a controller to load and run instructions that affect decryption (*Id.*, 156:28-41), or a decryption key itself that is transmitted along with encrypted digital information (*Id.*, 151:44-52). The "determining a fashion in which said receiver station locates a first decryption key" step of claim 13 identifies which decryption key to use and how to locate it and/or generate it. Weaver Dec., ¶¶ 64-66.

Claim 20 differs from claim 13 in several respects, including that it requires the processing of enabling information to provide both a first and second decryption key, both of

which are required to decrypt the encrypted digital information transmission. '091 Patent, 286:36-38, 42-45; *see also* Weaver Dec., ¶ 74. Claim 26 recites a step of "automatically tuning said receiver station to a channel designated by said instruct-to-enable signal." '091 Patent, 287:2-3. In other words, there is a step of automatically switching the input of the receiver station to a different communications path as designated by the instruct-to-enable signal. *See* Weaver Dec., ¶ 78. *See also* '091 Patent, 148:63-65; 149:10-39. Thereafter, enabling information is received from a remote source (*i.e.*, a source of information that is at a location different from the receiver station that is connected via a communications path) based on the step of tuning. Weaver Dec., ¶ 78. This "enabling information" received from the remote source (*e.g.*, a key, a reference to a key, or a function that generates a key, or a reference to a function that generates a key) is then processed to decrypt the encrypted transmission. *Id.*

Thus, the asserted claims of the '091 Patent describe specific technological solutions that are necessarily rooted in computer technology. They recite specific steps to take for securely distributing and locating highly sensitive control information (*e.g.*, instruct-to-enable signals that direct how to locate and/or generate decryption keys) that is required to unlock protected programming. *Id.*, ¶ 84. The asserted claims of the '091 Patent are not directed to abstract ideas, longstanding commercial practices, building blocks of the modern economy, methods of organizing human activity, mathematical formulae, or ideas in and of themselves. *Id.*, ¶ 83. Nor do they have any preemptive effect on decryption at large. *Id.*, ¶ 82.

Similarly, the asserted claims of the '635 Patent are not directed to merely "converting information from one format to another," as Apple contends. Instead, they are directed to specific methods for securely distributing control signals over a network that may be used only by authorized subscribers to access and decrypt encrypted content. Weaver Dec., ¶ 92.

For example, in claim 1 of the '635 Patent, there is a step of receiving encrypted digital

programming wherein the encrypted digital programming has an encrypted digital control signal. '635 Patent, 285:62-64. That control signal is passed to a decryptor that decrypts the encrypted control signal. The decrypted control signal then facilitates the decryption of the encrypted programming. '635 Patent, 285:66-286:6.

Claim 2 differs from claim 1 because it requires a first encrypted digital control signal portion of received programming be decrypted using a first decryptor. The decrypted control signal portion facilitates the decryption of the encrypted digital information portion of the programming by a second decryptor. '635 Patent, 286:7-28. A POSITA would understand the process of claim 2 to involve decryption of received encrypted information using two different key-algorithm pairs. Weaver Dec., ¶ 95.

Claim 3 is not focused on decryption of programming by a receiver station. Rather, it is directed to the transmission of various components from a remote transmitter station that will be used at a subscriber station to process and output a unit of programming. '635 Patent, 286:29-53; *see also* Weaver Dec., ¶¶ 96-101. Claim 13 also differs from claims 1 and 2 because, at a minimum, it requires a step of changing a decryption technique in response to one or more signals received in an information transmission. '635 Patent, 287:49-54. Claim 18 includes a step of controlling a decryptor to decrypt in a specific fashion on the basis of received code. '635 Patent, 288:17-22; *see also* Weaver Dec., ¶¶ 105-107.

Thus, when all the steps of the asserted claims of the '635 Patent are considered together, it is clear that the claims cover more than "converting information from one format to another," and more than simply "decryption." While some of the asserted claims recite decrypting as a step (with the exception of claim 3), when all the steps are considered, it is evident that the claims are directed to novel ways in which a decryption key is accessed, or to using other information to enable decryption (decryption of a received control signal). In addition, some of

the asserted claims are directed to specific applications which are used to change decryption techniques at the receiver station (*e.g.*, claim 13), or to using a received control signal or downloadable code to determine a specific fashion in which to decrypt encrypted digital data (*e.g.*, claim 33). Weaver Dec., ¶ 121.

The claims of the '635 Patent solve problems that are necessarily rooted in computer network technology. For example, some claims solve how a transmitter station can securely send encrypted control signals with encrypted digital programming, which control signals can then be decrypted to form the basis for decrypting encrypted programming. Others solve the problem of how a transmitter station can send an information transmission that includes a first plurality of signals that are used to change a decryption technique used to decrypt a second plurality of signals, which include embedded executable instructions which are decrypted to control a controllable device at a receiver station. *Id.*, ¶ 122. The claimed methods insure that only authorized users can view protected programming content.

Thus, the asserted claims of the '091 and '635 Patents are not inherently abstract. *See, e.g.*, *Rockstar*, 2014 U.S. Dist. LEXIS 67097, at *15 ("'[A] method of notifying a user of an incoming communication event is inherently limited to the sphere of application rather than abstraction.' A method of notification' requires a physical act in the world – delivery of some form of notification to a user."); *Advanced Mktg. Sys., LLC v. CVS Pharmacy*, Case No. 6:15-cv-134, Report and Recommendation (E.D. Tex. Nov. 18, 2015) (*adopted*) (denying motion for judgment on the pleadings without prejudice; "[A] review of the asserted claims does not clearly show that they 'recite[] an abstraction – an idea, having no particular concrete or tangible form. The . . . claims, for example, include physical structures. . . these structures counsel[] away from summarily concluding that the claims are directed to an abstract idea."). Ex. C.

Additionally, there is no risk of preemption. The asserted claims of the '091 and '635

Patents include specific limitations that "are not necessary or obvious tools for" converting data from one format to another, or for decryption *per se*. *See DDR Holdings*,773 F.3d at 1259 ("the claims at issue do not attempt to preempt every application of the idea. . . . Rather, they recite a specific way to [perform the idea]. . . ."). Apple's failure to show that any of the asserted claims of the '091 or '635 Patents preempts all use of the alleged abstract idea of "converting data from one format to another" requires that its motion be denied. At a minimum, this creates an issue of fact inappropriate for resolution on a Rule 12(b)(6) motion.

2. The '091 and '635 Patent Claims Are Directed To Inventive Concepts

Even if the '091 and '635 Patent claims are directed to an abstract idea (which they are not), those claims include inventive concepts that go well beyond the mere conversion of information from one format to another. The asserted claims of the '091 Patent are directed to specific ways of controlling decryption that include methods to securely distribute enabling information necessary to provide decryption keys required for decryption of protected content by the receiver station. This was an industry problem at the time of the patent. At a minimum, each asserted claim requires that both the instruct-to-enable signal(s) necessary to determine the fashion in which the receiver station retrieves a decryption key that is then used to decrypt an encrypted digital information transmission and the encrypted digital information transmission itself be received in the same transmission. The claims require that the instruction-to-enable signal detected in the encrypted digital information transmission be used to determine how to locate the decryption key (*see, e.g.*, claim 13), or be processed to actually provide a decryption key (*see, e.g.*, claim 20). Weaver Dec., ¶ 87.

These limitations transform the concept of decryption into very specific, concrete methods by placing requirements on the manner in which a decryption key is to be located and/or generated and used. As a result, the asserted claims do not, for example, apply to (or preempt)

cases where an instruct-to-enable signal is not sent with the encrypted digital information transmission. Nor do they preempt every process used to convert information from one format to another. *Id.*, ¶ 88.

As discussed above, some of the asserted claims of the '635 Patent are directed to specific ways to securely distribute enabling information, codes, or signals necessary to control decryptors or to change the decryption techniques used at the receiver station to decrypt the incoming encrypted information transmissions. Additionally, claim 3 is not focused on decryption. Rather, it is directed to a method of controlling a remote transmitter station to communicate specific program material to a specific subscriber station. At a minimum, each asserted claim directed to subscriber station operations requires that both the control signal, instruct signal, or code or datum necessary to control a decryptor or to control the decryption technique to be used as well as the encrypted digital programming itself be received in the same transmission. *Id.*, ¶ 126.

These limitations transform the concept of decryption into very specific, concrete methods by placing requirements on the manner in which decryption is controlled (*e.g.*, whether or not a receiver station is enabled to decrypt) and not just the manner of actual "conversion" from encrypted format to decrypted format. As a result, the asserted claims do not, for example, apply to (or preempt) methods of decryption such as DES or RSA. *Id.*, ¶ 127.

Further, it was certainly not routine or conventional in either 1981 or 1987 to encrypt digital television or other digital programming before it was transmitted so as to restrict access only to authorized users. *Id.*, ¶¶ 89, 128. The use of decryption to restrict access to programming was not routine and conventional because descrambling was the conventional practice used to restrict access to programming. *Id.*, ¶¶ 32-35, 89, 128. Nor was it conventional or routine in the 1980s to distribute decryption key information over networks to receivers. It

follows, therefore, that the methods of the '091 and '635 Patent claims to control the decryption of programming at a receiver station based on processing of instruct-to-enable signal(s) that are included within the encrypted digital information transmission that determine how the receiver station locates a decryption key, or are used to generate a decryption key, or by processing control signals, or other signals, codes or data that are included with the encrypted digital programming that are then used to control decryptors or control the decryption technique to be used were not routine or conventional. *Id.*, ¶¶ 89, 128.

3. The Asserted '649 Patent Claims Are Not Abstract Ideas

In its Motion to Dismiss, Apple asserts that "the asserted claims [39, 54, 62 and 67] of the '649 patent are directed to the abstract idea of using information to decide which television program to display." Br. at 24. There is nothing abstract about these claims.

In fact, the asserted claims of the '649 Patent are directed to novel techniques for facilitating the transmission and processing of digital television or digital video content from a transmitter station over a communications network to a receiver station. The transmitter station not only transmits the digital television or digital video content, but also transmits signals that control the processing of such content at the receiver station by including control information in a message stream along with the content. Since it is delivered in the same information transmission as the corresponding content, the control information provides timely intelligence for content selection and processing at the receiver station. Based on a comparison between the control information with certain locally-stored or configured data, the receiver station employs a control processor to selectively input the streaming digital content to multiple other processors, for example, for decoding and presenting the content on a display device. Weaver Dec., ¶ 131.

For example, claim 39 of the '649 Patent is directed to a method of processing signals in a television receiver having a plurality of processors. An information transmission including

digital television signals and a message stream (*i.e.*, a series of digital data packages each having a recognizable structure) is received. *See id.*, ¶ 132; *see also* '649 Pat, 7:51-52; 8:10-15; 9:62-64 and FIG. 2I. At least a first portion of the message stream is input to a control processor. Control information (*i.e.*, information, data or instructions that affect, control, or enable processing) in the at least a first portion of the message stream is selected and communicated to at least one register memory (*i.e.*, a memory space location to temporarily store information for use in later operations). *See* Weaver Dec., ¶ 133; *see also* '649 Patent, 21:53-54; 23:30-41; 23:52-57; 25:65-26:18; 63:24-59; 269:12-26. Stored function invoking data is compared to the contents of the at least one register memory. A POSITA would understand the term "stored function invoking data," as used in the '649 Patent claims, to mean data stored in memory that is used as a basis for causing certain preprogrammed functions stored at the receiver device to be performed. *See* Weaver Dec., ¶ 134; *see also* '649 Patent, 23:38-57; 269:12-36. The digital television signals are then inputted to the plurality of processors on the basis of one or more matches, processed simultaneously at two or more of the plurality of processors and television programming included in the digital television signals can then be displayed.

In contrast to claim 39, a POSITA, reviewing claim 54 in light of the specification, would understand that it is directed to an intermediate transmitter station rather than to the receiver station. Weaver Dec., ¶ 136. Claim 67 is directed to a method of processing signals in a television receiver, wherein the television receiver has a plurality of processors. In a first step, an information transmission including digital television signals and cadence information is received. A POSITA would understand "cadence information," as used in the '649 Patent, to be fields in a data package such as headers, length tokens and/or end-of-file signals that enable a receiver to distinguish the individual messages within a message stream. *See id.*, ¶ 139; *see also* '649 Patent, 31:14-19. The cadence information is passed to a control processor and

communicated to at least one register memory. Stored communication control information is then compared to the contents of the register memory. The digital television signals are communicated to the plurality of processors on the basis of one or more matches. The digital television signals are processed simultaneously at two or more of the plurality of processors. Television programming included in the digital television signals is then displayed.

Thus, the asserted claims of the '649 Patent are not directed to simply "using information to decide which television program to display," as Apple contends. Instead, they are directed to applications and processes for facilitating digital television or digital video content from a transmitter station over a communications network to a receiver station. The transmitter station not only supplies the digital television or digital video content but also provides signals that control the processing of such content at the receiver station by including control information in a message stream transmitted along with the content. The control information provides timely intelligence for content selection and processing at the receiver station. Based on a comparison between the control information and certain locally-stored or configured data, the receiver station employs a control processor to control the selective input of the content to multiple other processors, for example, for decoding and presentation on a display device. Weaver Dec., ¶ 142.

The claims recite very specific and concrete steps for processing incoming digital information transmissions at both intermediate transmitter stations and receiver stations that include embedded control signals, message streams, and cadence information to extract relevant data packets and for comparing certain information associated with data packets to prestored data to determine relevant data packets associated with selected video or television programming. The claimed concepts are not abstract ideas. *Id.*, ¶ 145.

The '649 Patent claims are directed to problems specific to computer networks and the distribution of streaming digital television programming and other digital content over such

networks. *Id*., ¶ 144. Compared to conventional receiver stations in 1987, which could only passively receive broadcast content (*see id*, ¶¶ 27-31, 36-37), the claims of the '649 Patent offer significant technical advantages because they enable remote control of the receiver station operations by using the transmitted control information. Additionally, these inventions enable each receiver station to have flexibility in its content consumption, thereby enabling streaming digital media, which was in a nascent stage of development and adoption in 1987. *Id.*, ¶ 143.

Thus, the '649 Patent claims are not directed to longstanding commercial practices, nor to building blocks of the modern economy, methods of organizing human activity, mathematical formulae, or ideas in and of themselves. *Id*., ¶¶ 146-147. The '649 Patent claims do not preempt streaming digital media as a whole. At the very least, the claims require digital television signals received in an information transmission with a message stream, so, for example, analog multimedia signals would not be preempted by the claims. *Id.*

4. The '649 Patent Claims Are Directed To Inventive Concepts

Even if the '649 Patent claims are directed to an abstract idea, which they are not, they include inventive concepts that go beyond merely "using information to decide which television program to display." The asserted claims of the '649 Patent are directed to specific ways of controlling how the apparatus at a receiver station processes digital television or digital video content received from a transmitter station over a communications network using control signals included in the transmission. *Id*., ¶ 149.

Further, it was not conventional or routine practice in 1987 to transmit television or other programming digitally. Moreover, streaming digital media was not adopted until well after 1987 because of various technological challenges. *See id*., ¶¶ 41-49. Indeed, in 1987, the industry was heavily involved in addressing the various network-based challenges associated with streaming digital media. Compared to the conventional receiver stations at the time, which could

only passively receive broadcast content, the inventions of the '649 Patent offered significant technical advantages because they enabled the operations of individually-addressable receivers to be regulated remotely using control information transmitted along with the digital media content. This allowed each receiver station to have flexibility in its content consumption which was one of the technological challenges associated with the streaming of media content on demand to individual receivers. *Id.*, ¶ 150.

5. Claim 14 of the '088 Patent Is Not Directed To An Abstract Idea

Apple contends that claim 14 of the '088 Patent is directed to the abstract idea of "monitoring how information is used." Br. at 24. That is simply not the case.

Claim 14 of the '088 Patent is directed to a specific multimedia receiving apparatus for processing multimedia content and gathering related signal usage information. The apparatus includes a plurality of input ports for receiving multimedia signals. A POSITA would understand a multimedia receiving apparatus to be a device that is capable of receiving and processing content, using a processor, in multiple media formats, Weaver Dec., ¶ 153, and that the term "input port," as used in this claim, means defined or designated connections or paths that feed received programming or instructions into a receiver for processing. *Id.; see also* '088 Patent, 15:48-17:9. Further, the POSITA would understand "multimedia signals" to be signals that include information in multiple forms of media such as audio, video, computer programs, and data (*e.g.*, information, control signals, instructions). Weaver Dec., ¶ 153; *see also* '088 Patent, 15:53-16:10.

The apparatus of claim 14 further includes an output port, *i.e.*, a defined or designated connection or path used by one device or circuit to output signals to another device or circuit. Weaver Dec., ¶ 154; *see also* '088 Patent, 16:55-62. It also includes a processor, operatively connected to the plurality of input ports and the output port, and programmed for identifying a

signal from at least one of the plurality of input ports, passing the signal from the processor to the output port, wherein a way the signal is passed from the output port is based on the step of identifying, and communicating information on a use of the identified signal, wherein the use of the identified signal comprises information of the passing of the identified signal based on the step of passing. Weaver Dec., ¶ 155. Claim 14 is directed to problems specific to digital multimedia and the distribution of digital multimedia content via computer networks which was a nascent technology in 1981 presenting many challenges. *Id.*, ¶¶ 41-49; 156. It is not directed to a longstanding commercial practice, a building block of the modern economy, a method of organizing human activity, a mathematical formula, or an idea in and of itself.

Claim 14 of the '088 Patent is directed to a very specific, concrete multimedia receiving apparatus configured with the specific recited components to receive and process content in multiple media formats and communicate information on what programming is used. It has no preemptive impact on all methods for "monitoring how information is used." *Id.*, ¶ 157.

6. Claim 14 of the '088 Patent Is Directed To An Inventive Concept

Assuming that claim 14 of the '088 Patent is directed to an abstract idea (which it is not), it includes inventive concepts that go beyond the alleged abstract idea. Claim 14 is directed to a very specific implementation of a multimedia receiving apparatus with specified components that addresses how to receive and process multimedia signals and monitor usage. The transmission and processing of digital multimedia was an industry problem in 1981, and this invention addressed some of the challenges associated with digital multimedia at the time. *Id.*, ¶ 159. It was not conventional or routine in 1981 to transmit or receive digital multimedia content via computer networks or communicate signal usage information at the time. *Id.*, ¶¶ 41-49; 160.

V. CONCLUSION

For the forgoing reasons, PMC respectfully asks that the Court deny Apple's motion.

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CERTIFICATE OF SERVICE

I hereby certify that the all counsel of record who are deemed to have consented to electronic service are being served January 27, 2016, with a copy of this document and all documents in support thereof, via the Court's CM/ECF system per Local Rule CV-5(a)(3). Any other counsel of record will be served by electronic mail, facsimile transmission and/or first class mail on this same date.

/s/ Elizabeth L. DeRieux